SECTION AB46.417A
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ELECTRON TUBE DATA SHEET

WESTERN ELECTRIC 417A ELECTRON TUBE



DESCRIPTION

The 417A is a 9-pin miniature triode with an indirectly heated cathode. It is intended primarily for grounded-grid operation in the input stage of broad band amplifiers.

CHARACTERISTICS

Heater Voltage	6.3	volts
Maximum Plate Voltage	200	volts
Amplification Factor	43	

FILE: MINIATURE SECTION

GENERAL CHARACTERISTICS

Electrical Data

Heater Voltage (Note 1)	6.3	volts
Heater Current	300	milliamperes
Direct Interelectrode Capacitances	(without external shield)	
Input (cathode to grid and heater)	9.0	μμf
Output (plate to grid and heater)	1.8	μμf
Plate to Cathode and Heater	0.48	μμf

Mechanical Data

Cathode	coated unipotential
Bulb	T 6½
Base	Small button 9 pin
Mounting Position	Any

MAXIMUM RATINGS, Absolute System (Note 2)

Plate Voltage	200	volts
Plate Dissipation	4.5	watts
Cathode Current	40	milliamperes
Heater Cathode Voltage	55	volts
Bulb Temperature	130°	centigrade

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Plate Supply Voltage	130	150	volts
Grid Voltage (Note 3)	+7.5	-	volts
Cathode Resistor	360	62	ohms
Plate Current	23.0	22.5	milliamperes
Plate Resistance	1850	1700	ohms
Transconductance	25000	25000	micromhos
Amplification Factor	44	43	

Note 1: For optimum tube life the heater voltage specified (6.3 volts) should be regulated to ±5%.

Note 2: In the "Absolute System" the maximum ratings specified are limiting values above which the serviceability of the device may be impaired from the viewpoint of life and satisfactory performance. Maximum ratings, as such, do not constitute a set of operating conditions and all values may not, therefore, be attained simultaneously.

Note 3: Reference point for "Grid Voltage" is the negative end of the cathode resistor. Operation with the control grid positive with respect to the cathode is not recommended.

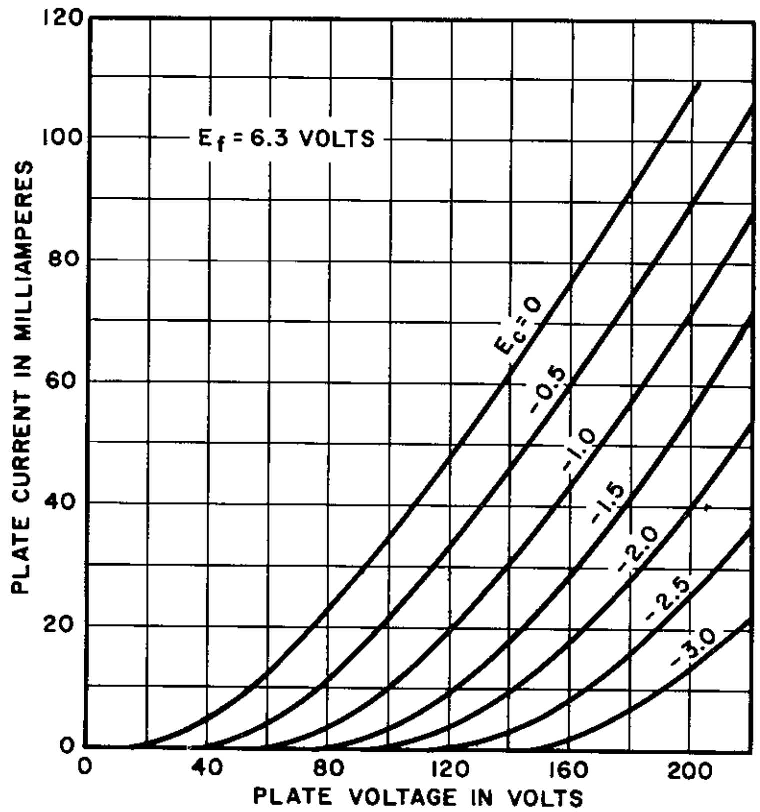


FIG.1

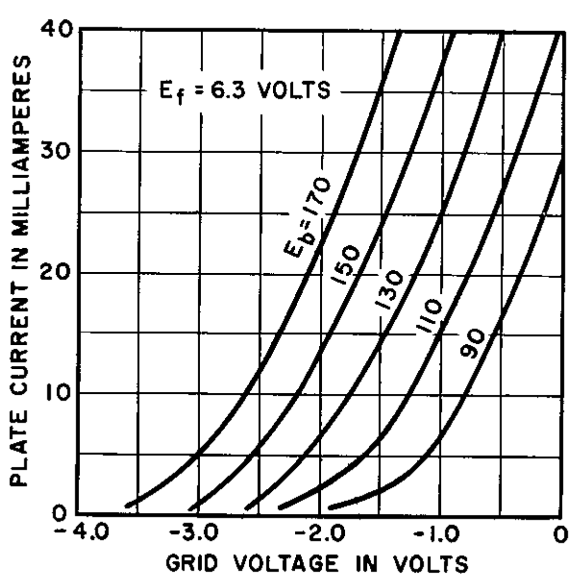


FIG.2

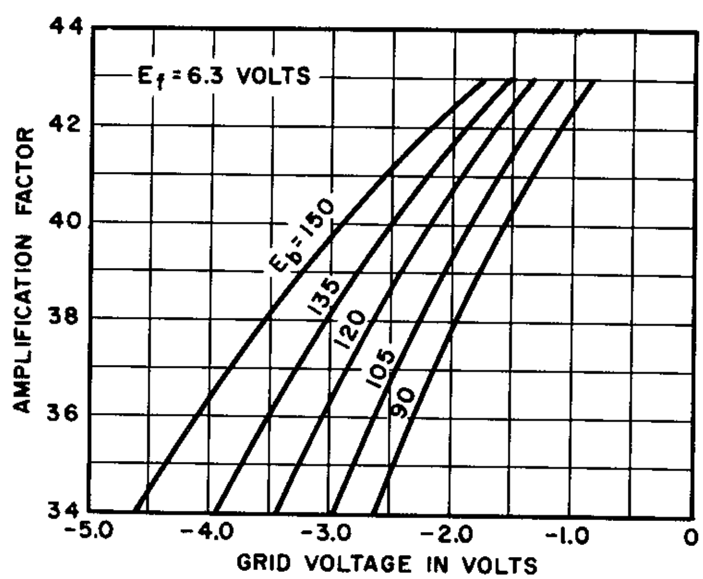


FIG.3

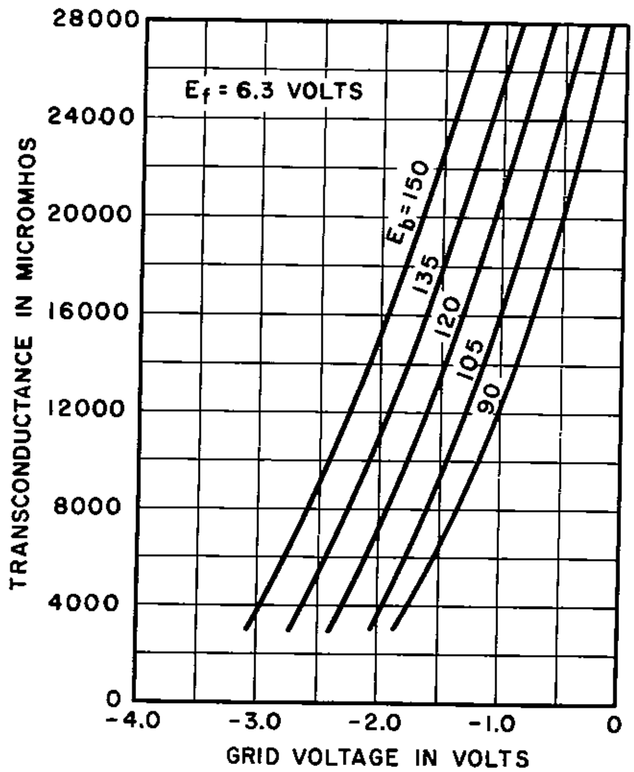


FIG. 4

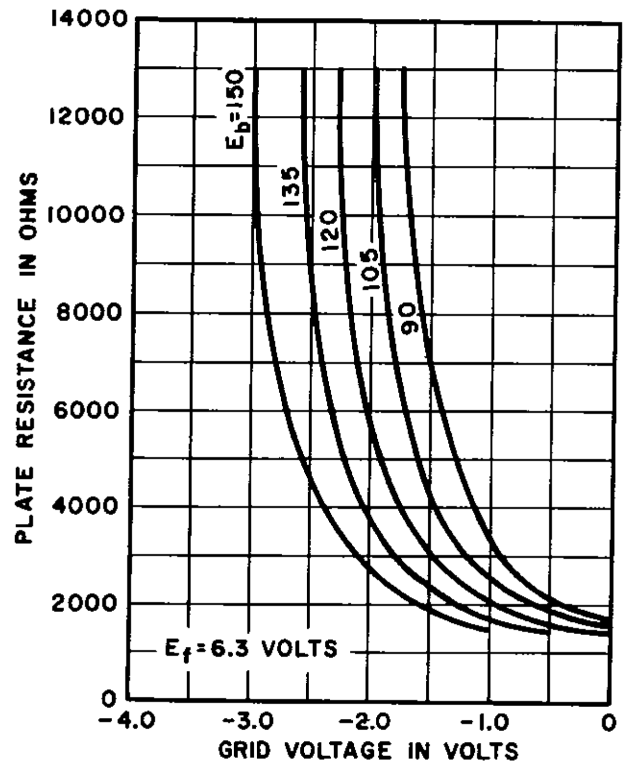
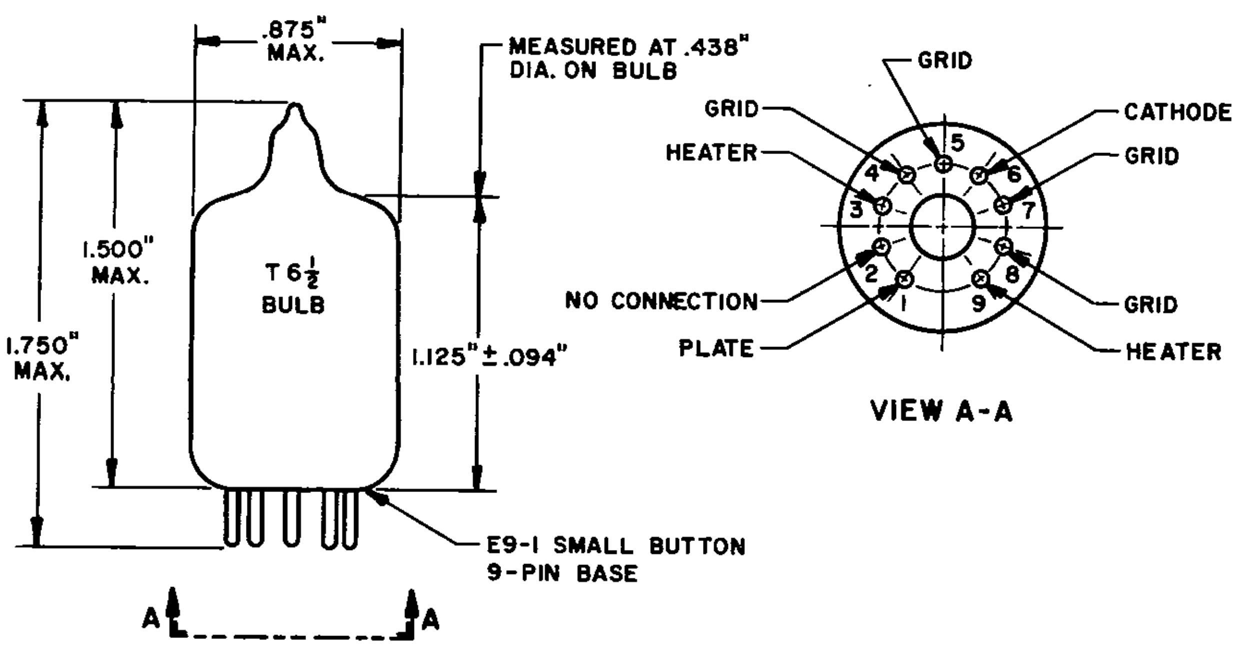


FIG. 5



VIEW A-A

A development of Bell Telephone Laboratories, the research laboratories of the American Telephone and Telegraph Company and the Western Electric Company.

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